

**DESTINATION MARS: EDUCATION ACTIVITY PACKET MAKES SOLAR SYSTEM EXPLORATION COME ALIVE IN THE CLASSROOM** M.M. Lindstrom<sup>1</sup>, J.S. Allen<sup>2</sup>, K. Tobola<sup>3</sup>, K. Stocco<sup>3</sup>, K. Mayse<sup>3</sup>, L. Schrade<sup>3</sup>, and C.C. Allen<sup>2</sup>, <sup>1</sup>SN2 NASA-JSC, Houston TX 77058 <sup>2</sup>C23 Lockheed Martin, Houston TX 77058, <sup>3</sup>Alvin, Clear Creek, & Pasadena School Districts.

Mars has again captured the interest of a vast part of the scientific and non-scientific world. The general public rarely has strong continuing interest in scientific discoveries, but, the possibility of life on Mars and the upcoming landing of Mars Pathfinder have generated enthusiastic on-going interest from a large part of the public. This interest presents an exceptional opportunity to extend learning in the classroom and help educate the public about planetary exploration.

A team of JSC planetary scientists and teachers have developed a packet of instructional materials focused on Mars science and exploration. These materials are designed to increase students' knowledge, awareness, and curiosity about the process of scientific exploration of Mars. The Mars materials include hands-on activities that reinforce and extend important concepts within the typical upper elementary through high school Earth and life science curricula. Several interdisciplinary activities may be used in non-science classes. The design of the activities encourages teachers to use them in small segments added to or inserted in the existing curricula. Presenting the Mars theme through several activities over a range of science and non-science topics allows the teacher flexibility in delivery while continuing to spark students' interests in planetary exploration.

The DESTINATION MARS EDUCATIONAL ACTIVITY PACKET includes two major parts. THE MARS RESOURCE GUIDE is a comprehensive compilation of activities and support materials. This guide presents an annotated list of classroom activities, reference materials, Internet sites, CD-ROMs, videos, and the acquisition information for each. The

selection of DESTINATION MARS CLASSROOM ACTIVITIES contains hands-on exercises that highlight scientific processes related to Mars research. The activities focus on geologic and biologic processes or features of Mars. The aim is to encourage students to compare processes on Earth and Mars.

Several of the activities use the new Mars soil simulant [1] and compare it to various Earth soils. "The Visions of Life" activity set helps students focus on the difference between the science fiction images of life on Mars and the realistic search for microbial life both in Mars samples and on future robotic and human explorations. The "Geologic Processes" activities that highlight volcanism and impact illustrate that these processes affect all the solid bodies of the inner solar system including Earth. "Mars Mapping" allows students to use observation and logical sequencing to interpret parts of the Mars surface. This activity fits easily in the surface water unit found in most Earth science classes. The "Mars Trajectory" exercise teaches students to plot the timing and course a spacecraft will take on a curving path from Earth to Mars.

Museums, planetariums, and other science centers may find THE MARS RESOURCE GUIDE and DESTINATION MARS CLASSROOM ACTIVITIES useful to enhance the planetarium program DESTINATION MARS [2] which will be available nationwide in Spring 1997. These materials are also useful for special sessions focused on the Pathfinder landing.

References: [1] Allen, C.C. et al, 1997 this volume. [2] Lindstrom, M.M. et al, 1997 this volume.